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EDUC 533

Assignment 1

Instructional Design Model, Instructional Strategy Comparison

The following is comparative article that looks at the differences and similarities between instructional strategies and instructional design models. The first section talks about the differences and similarities of instructional strategies and instructional design strategies as whole. The second section of this paper looks at the differences and similarities between cognitive approach and criterion referenced instruction. The last section details the differences and similarities between scaffolded instruction and schema theory.

Instructional design models and instructional strategies are very similar in concept, but also have specific differences. Instructional strategies help to determine the approach a teacher will take when trying to achieve a learning objective. The different objectives found in different lessons helps to determine which instructional strategy is used. Instructional strategies are tied to the needs and interests of the students to enhance the students learning. The instructional strategies also help to create better learning environments and create specific lessons.

Effective instructional design models are based on learning theories and are meant to organize lessons in order to achieve the instructional goals of the lesson. The design models act as a framework for developing lessons that enhance learning by engaging student learning and create a deeper level of understanding for the knowledge being taught. Most instructional design models follow the ADDIE design.

Instructional strategies and design models are similar in that they help to organize lesson plans and achieve learning objectives, which are the primary goals of lesson. The two strategies also strive to provide students with effective instruction that is engaging to the students. The two strategies also differ. Instructional design models generally follow the ADDIE design, which is not generally true of Instructional strategies. While the two models are used to create better lessons, instructional strategies focus mainly on the objectives of the lesson, while instructional design models mainly focus on how to organize a lesson in order to reach the lessons objectives.

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|  | Cognitive Approach | Criteria Referenced Instruction |
| A | Articulation | Instructional objectives |
| D | Modeling | Study and practice |
| D | Coaching | Opportunities to practice |
| I | Exploration | Repeated Practice |
| E | Reflection | Sequence own instruction |

Cognitive approach helps students learn though guided experience and uses hands-on teaching to create learning. Students first observe a practice as modeled by an expert, and then students are then given an opportunity to begin their own practice while the teacher coaches the students. Once coaching has taken place, students move on the articulation phase where they verbalize what they learned. The student’s then move on to the reflection phase where they compare their work with their peers, before arriving at the last stage, exploration, where students determine their own learning by problem-solving.

Criteria reference instruction is mostly used in technical training. This model is much different than the cognitive approach model, because criteria reference instruction focuses on self-management rather than having a teacher guide the learning. The first step in criteria reference instruction is to learn what objectives need to be met; and then the student can move on to studying and prating the skills associated with the objectives. After this, the students are given an opportunity to practice each objective. Students are then given repeated practice in skills they did not master, with the final step allowing students to choose their own sequence of learning.

As previously stated, one of the biggest differences between these two models is that criteria reference instruction focuses on the students monitoring their own learning that is self-directed, while cognitive approach focuses on using hands-on experiences that the teacher first models and gradually gives control to the students over time. The way these two models analyze is different as well. Cognitive approach uses articulation in the sense of having students state the knowledge, whereas criteria reference instruction uses instructional objectives that students are aware they need to learn. The analysis is similar in that both models analyze the knowledge and objectives they are trying to meet, but the analysis is carried out in a very different way. During the design phase, modeling is used in the cognitive approach, but students study and practice independently when they use the criteria reference instruction. In both models the students are given time to practice or are given coaching during the development phase. While students are given the freedom to explore their learning with the cognitive approach in the implementation stage, students with the criteria reference instruction are given repeated practice of what they may not have learned concretely in previous lessons. Exploration and repeated practice are similar, but exploration generally involves the students making their own learning through hands-on experiences; and repeated practice is generally redoing work that was not at the standard it should have been. The evaluation process for these two models is also different. Cognitive approach uses reflection to think about the problem-solving experience and the knowledge gained from the lesson, and criteria reference instruction does not reflect on what the student did, rather, the student is given the freedom to choose their own sequence of learning.

This comparison between the criteria reference instruction and cognitive approach leads me to believe that cognitive approach would be more effective when solving an instructional problem as it involves hands-on projects and is engaging, while also allowing the teacher to guide the students learning.

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| Sample Comparison Criteria | Schema Theory | Scaffolded Instruction |
| Student-Centered | Yes-The teacher is the facilitator | Yes-The teacher is the facilitator |
| Age-Appropriate | Yes-Appropriate for all ages | Yes-Appropriate for all ages |
| Assessment | Yes-Student progress can be assessed through inquiry | Yes-Student progress can be assessed through inquiry |
| Ease of Use | Yes-Can be implemented easily | Yes-Can be implemented easily |
| 21st Century Fluencies | No-Technology is not often used | Yes-Technology can be incorporated |
| Engaging | Yes-Students usually create projects to show their learning | Yes-Students work hard to become independent |

Schema theory is an instructional strategy used to build students’ background knowledge before they learn a lesson. The thought behind this teaching strategy is that students learn best when they have a concrete understanding of the relevant information related to the knowledge they are learning. Once this background knowledge has been built, learning can happen more proficiently.

Scaffolded instruction is a theory with the goal that students can accomplish many things on their own, after the students have learned from an expert. The teacher is mainly in control at the beginning of scaffolded instruction, but is gradually phased out and the teacher becomes the facilitator as the students’ learning increases.

Schema theory and scaffolding instruction are similar and can be used in congruence with one another. Both strategy views the teacher as a facilitator and is very focused on providing students with engaging lessons. These engaging lessons happen because the teacher is not seen as a dictator, but is seen as a facilitator to help encourage students’ learning. During the unit the student’s progress can be assessed through inquiry for both strategies. At the end of the unit students using schema theory generally produce a project to show what they have learned, whereas scaffolding instruction has succeeded if the students are independent learners. While Schema theory does not generally use technology, scaffolding instruction tends to use technology more.

Both schema theory and scaffolding instruction could be used to develop and instructional lesson or module. I do not believe that one strategy is better than the other, but I do believe these two strategies would be even more effective if they were used together. If I were to create an instructional lesson, I would use the schema theory and scaffolding instruction to develop the lesson.